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July 29, 1999

Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals II
445 Twelfth Street, S.W.
Washington, DC 20554

RE: Comments on MM Docket No. 99-25

Dear Madame Secretary;

Fuller-Jeffrey Broadcasting wishes to file comments on the Commission's proposal to create a Low Power Radio Service prior to the deadline for filing such comments, August 2, 1999.

Enclosed herewith one original and nine copies for distribution to each of the Commissioners.

Very Truly Yours,



Robert L. Caron
Senior Vice President

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Before the
Federal Communications Commission

Washington, DC 20554

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In the Matter of)	MM Docket No. 99-25
)	
Creation of a Low Power)	RM-9208
Radio Service)	RM-9242
)	

To: The Commission;

**COMMENTS OF FULLER-JEFFREY BROADCASTING
ON A NEW LOW POWER RADIO SYSTEM**

Fuller-Jeffrey Broadcasting Companies, Inc. (FJBC) hereby submits comments on the above referenced Notice of Proposed Rule Making and Order adopted January 28, 1998 and released February 3, 1999. FJBC is licensee of 12 radio stations in Maine and New Hampshire.

Introduction

FJBC does not, in concept, oppose the creation of some form of inexpensive method of broadcasting that would serve the diverse needs of those most distanced from access to the present system of commercial, non-commercial, and educational stations. We have serious issues, however, with the current plan to place this proposed service in the interstices of the existing FM band, the only remaining spectrum available for the digital future of America's radio broadcasting system.

Interference to IBOC Digital Systems

We first make note of the Commission's express desire to protect existing radio services and to maintain the technical integrity of the FM band by quoting from paragraph 49 of the NPRM: *"We are concerned that our understanding of future IBOC systems is preliminary and that we may not be fully aware of any negative impact or restrictions that authorization of low power radio service would have on the transition to a digital IBOC technology for FM stations."*

It also bears notice that IBOC was born of an industry initiative of nearly a decade ago in which U.S. radio broadcasters eschewed the demand for additional spectrum for their future conversion to digital modes, in the process assuming the entire burden of inventing and seeing to completion this heretofore unheard-of technology. The long-term economic viability and the digital/technical future of the domestic radio industry has since hinged entirely on the success of IBOC. Other alternatives were abandoned early in the process.

While it is arguably true that the progress in IBOC of the past six months may have exceeded that of the prior decade, and that the USADR filing for recognition as the "official" in-band digital provider suggests a finished technology, this is still a work in progress. Operational tests on the serious issues of service area, compatibility, and resistance to interference are still in the planning stages. A statement in the USADR petition can be read to imply that their system will be resistant to second and third-adjacent channel interference, but much of that is brought into question in a prior NAB filing of comments.

This fundamental conflict in theories underscores the fact that only one method of testing is capable of rendering conclusions on which intelligent and error-free decisions may be based: actual on-air field tests, using fully-functioning IBOC stations transmitting digital signals under real terrain and propagation conditions. No amount of speculation, no series of laboratory or computer model simulations, and certainly no amount of theoretical speculation by interested (and biased) parties can provide answers with the degree of

certainty required of resolving a dilemma with the potential to relegate the free, over-the-air radio broadcasting industry to obsolescence and obscurity.

It is this commenter's position that the Commission's role as a protector of existing spectrum overrides all its other broadcast-related functions. Final decision on any plan to interleave a Low Power Service into the present FM band must follow—not lead—the unfettered development, field testing, and impartial analysis of the new IBOC technology.

Alternative to FM for a Low Power Service

The prospect of placing a new Low Power Service on the AM band gets only a passing mention in the NPRM (para. 15): *“We believe that introducing low power stations into any part of the AM spectrum would have a serious negative impact on our efforts to improve the quality of reception in this band.”* Is it possible that existing—and possibly no longer valid—paradigms on band congestion, expense of construction, and nighttime propagation were the only considerations in eliminating the possibility of locating a low-cost system of community broadcasting on the frequencies allocated to the existing AM service?

Commenter believes the rejection of the AM band for a Low Power Service may have been premature and that in making that decision the Commission failed to take into account a number of factors meriting additional consideration. Specifically:

1. The fabled congestion on the main portion of the AM band stands in sharp contrast to the new, starkly underpopulated territory of the expanded band between 1600 and 1700 kHz. Silence predominates—day and night—in this segment of the AM band. Can this be considered efficient use of spectrum, given the enthusiasm surrounding the proposal to jam low power stations on previously unavailable portions of the FM band? Is it at all reasonable to believe that moving a handful of stations to the “clear” frequencies of the expanded band will reduce the massive amount of existing nighttime interference in the traditional portion of the AM band to any significant degree?

2. Can the Commission justify limiting access to the expanded AM band to a handful of large commercial stations in light of the 13,000 inquiries received from persons or organizations desiring a chance at low power broadcasting? Does information exist to indicate that a scattering of 10,000 watt expanded band radio stations will serve a significantly larger number of listeners than would many hundreds of properly engineered Low Power AM stations?
3. Recent developments in compact, low angle-of-radiation antenna designs merit additional study, as greatly reduced undesirable skywave radiation would overcome the single most powerful argument against allowing new low power stations to exist on the AM band. There is no known evidence to this commenter that existing TIS stations on 530 kHz and 1610 kHz are appreciably less useful in the nighttime hours than at times when skywave propagation is less of a problem. All the stations in the Travelers Information Service appear to productively co-exist using power and antenna characteristics that minimize interference. Could the technical standards observed in the TIS serve as a model for developing an effective Low Power Service on the AM band?
4. From the perspective of the listener, the wide availability of very inexpensive AM portable and desktop radios constitutes a powerful argument in favor of a Low Power Service on the AM band. Both tunable and fixed tuned AM radios are available in quantity for under five dollars per unit. It is difficult to believe that FM radios could be ever be marketed at such an attractive price point—especially if a Low Power Service rooted in the FM band is determined to only be possible with specially restricted emission masks requiring tightly filtered receivers.
5. Low Power stations on AM frequencies would not be differently bandwidth limited, making their own conversion to digital no more complicated than the same procedure at full power outlets. Spectrally limited Low Power stations on FM might forever be precluded from using effective methods of digital modulation.

6. Tax advantages could be devised to encourage existing operators to donate AM facilities to the cause of Low Power radio. Nighttime interference problems could thusly be minimized, as even a dozen properly engineered Low Power Service AM stations on a single frequency would cause less distant interference than a higher power outlet using traditional directional array transmission techniques.
7. A glaring deficiency of the proposed Low Power Service on the FM band is the fact that relatively few of the potential hundreds of such facilities can be accommodated in large cities—the very locus of the most acute need for additional outlets of public expression. Such a service on AM would guarantee a far greater number of Low Power stations where they are most needed—in large cities.
8. A final, but not precisely quantifiable benefit of locating a Low Power service on AM frequencies is the band's diminished allure to radio hobbyists, many of whom undoubtedly await a successful LPFM proceeding for an opportunity to add still another musical jukebox to their market's airwaves. The licensing process for a new Low Power Service would be greatly simplified if the body of applicants consisted mainly of those with true intentions of broadcasting to genuinely underserved segments of the population.

Commenter believes the time has arrived to study a parallel proposal to the current NPRM on Low Power radio to fully explore to possibility of placing a new service on the vastly underused frequencies of the expanded AM band along with those presently occupied by poorly engineered, unproductive facilities. Such a study should be conducted with the same care and standards of proof urged for the IBOC tests, using actual Low Power AM stations equipped with modern design, low angle-of-radiation antennas and sufficiently low power to confine the signals to contours similar to those contemplated in the proposal to use FM frequencies.

The alternative of placing a new Low Power Service on the AM band deserves the full attention of the Commission.

Digital Audio Radio Service (DARS) and Digital Television (DTV)

While not entirely germane to the issue at hand, the nascent technologies of Digital Television (DTV) and the Digital Audio Radio Service (DARS) bear noting as illustrative that this Commission, in addition to proposing several new classes of Low Power Radio with the potential of tens of hundreds of new radio stations, has already initiated a remarkable proliferation of programming outlets. DTV will quadruple the channel capacity of each local television outlet while DARS creates two additional nationwide services of 100 channels of audio each. While the overall economic and sociological effects of this explosion of broadcast outlets remain largely speculative, it can be said with great certainty that the diversity of programming sources available over the airwaves will be increased significantly in the very near future.

The ultimate role of terrestrial DARS boosters remains similarly subject to speculation and debate, mostly over the ability of these facilities to originate localized programming. Could this imminent technology be seen as largely or completely fulfilling the need for additional outlets of public expression that fuels the proposal for one or more new classes of radio broadcast outlets sharing already crowded spectrum allocations? Would the public good suffer appreciably if the Commission were to postpone a decision on a Low Power Service until it has had time to properly assess the effects of DARS, its most recent but still unrealized new creation? On the final point, commenter thinks not.

Summary

In conclusion, FJBC urges the Commission to move extremely carefully through this proceeding. It must remain as top-of-the-mind awareness that the future of free, over the air radio in the United States is exclusively dependent on the limited (for digital) bandwidth of

present FM broadcast band. There is simply no new spectrum to which to flee if we inadvertently, or for political expediency, or through incompetence, or even imbued with good intentions, foul our nest beyond known repair.

There is no more fitting a concluding thought than the words of FCC Commissioner Susan Ness: *"IBOC technology appears to be almost ready for commercial application and should not be undermined or compromised by any action we take on low power FM."*

There are but two paths to the fulfillment of that ideal. The first involves waiting patiently for the results of full-scale field tests to resolve without doubt the potential interference problems to IBOC. The other, and preferred method is to place any new Low Power Service in the underutilized portions of the AM band.

Respectfully submitted,

Fuller-Jeffery Broadcasting Companies, Inc.

A handwritten signature in black ink, appearing to read 'R. Caron', is written over a horizontal line.

Robert L. Caron, Senior Vice President

July 28, 1999